

## **Supplemental Data**

# **Induction of unfolded protein response during neuronal induction of rat bone marrow stromal cells and mouse embryonic stem cells**

Yoon Mi Cho<sup>1,2</sup>, Yoon-Seong Jang<sup>1</sup>, Young-Min Jang<sup>1</sup>, Sang-Mi Chung<sup>4</sup>, Ho-Shik Kim<sup>1,2</sup>, Jeong-Hwa Lee<sup>1</sup>, Seong-Whan Jeong<sup>1,2</sup>, In-Kyung Kim<sup>1</sup>, Jung Jin Kim<sup>3</sup>, Kwang-Soo Kim<sup>4</sup> and Oh-Joo Kwon<sup>1,2,5</sup>

## **Methods**

### **Total RNA isolation, RT-PCR and real-time PCR**

Total RNA was prepared using TRIzol Reagent (Invitrogen). cDNAs were synthesized by using M-MLV reverse transcriptase (Promega, Madison, WI). The quantitative real time PCR analysis was performed on three independent RNA samples by using Mx3000P Multiplex Quantitative PCR instrument (Stratagene, La Jolla, CA) with the SYBR Green Q-PCR Master Mix (Takara, Shiga, Japan). The relative amount of mRNAs was calculated using the  $\Delta\Delta Ct$  method with the *GAPDH* mRNA as an internal control. The primers used for RT-PCR and real time PCR analysis are listed in Supplemental Data Table S1.

**Table S1.** Primer sequences used for PCR.

Name	primer sequences (5'-3')		size (bp)
	sense	antisense	
rat CNPase	agagctgcagttcccttcctca	tgtcatcgagcacaagaaccctga	278
rat GFAP	atctgtgtcagaaggccaccaa	tgttagttggagatgcagggttgt	297
rat XBP1	agcataggcctgtctgcttca	tggtaaagtccagcacttggagtt	307
rat XBP1(s)	tctgctgagtcgcagcagg	ctctaagactagaggcttgg	321
rat ATF4	gtggccaaggcaccaaaccat	catgtgtcatccaacgtggccaaa	236
rat BIP	atcaacccagatgaggctgt	agacattgattgttacgggtggct	235
rat CHOP	tgaactgttggcatcacccctgt	cctctcttggctaccctcagt	125
rat GADD34	cctgaatggagtaaagca	ctccccaaacttcttatac	207
rat neurofilament-L	ctgctaagaagaaagattgagcc	ctgaactcataaggcatggacc	268
rat neurofilament-M	acatcacccgtagagcgcaaagact	actcgagctcaatgcttggact	240
rat Nrf2	agtcccagcaggacatggattga	cttgttggaaatgtggcaacct	300
rat P58 <sup>IPK</sup>	agagaaagcccagcggtactgaa	attgctaccaccccttgctgagt	289
rat $\beta$ -actin	tgccttatctatgagggttacg	tagaaggcatttgcgggtcaccg	470
mouse ATF4	gtggccaaggcaccaaaccat	tccaacgtggtcaagagctcatct	230
mouse BIP	accaggatgcggacattgaagact	aaagcagtaaacagccacttgggc	299
mouse CHOP	aaacggAACAGAGTGGTCAGTGC	agggtatgccactgttcatgctt	217
mouse XBP1	agcagcaagtggatttggaaag	aaggcaacagtgtcagagtccaa	299
mouse XBP1(s)	ggtctgctgagtcgcagcagg	tgacagggtccaacttgcatttgg	164
mouse neurofilament-L	agaacgcccgaagagtggtaaga	tgcattggcgctaatgtctgcattc	223
mouse GAPDH	aacttggcatttggaaagggtc	tggaagagtggagttgttgttga	382